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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,215	02/19/2004	James A. McClain	030900	5338

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EXAMINER

KRISHNAN, GANAPATHY

ART UNIT	PAPER NUMBER
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1623

MAIL DATE	DELIVERY MODE
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05/31/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/782,215	Applicant(s) MCCLAIN, JAMES A.	
	Examiner Ganapathy Krishnan	Art Unit 1623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6,7,9,10,12-16,18-24,26 and 27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-4, 6-7, 9-10, 12-16, 18-24 and 26-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The amendment filed 3/5/2007 has been received, entered and carefully considered. The following information provided in the amendment affects the instant application:

1. Claims 2, 5, 8, 11, 17 and 25 have been canceled.
2. Claims 1, 15-16, 24 and 26-27 have been amended.
3. Remarks drawn to claim objections rejections under 35 USC 112, first paragraph, 102 and 103.

Claims 1, 3-4, 6-7, 9-10, 12-16, 18-24 and 26-27 are pending in the case.

Claim Objections

The objection of claim 27 has been withdrawn in view of applicants' arguments.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The rejection of Claims 9-10, 12, 18-20 and 26 under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for making resistant starch, does not reasonably provide enablement for making resistant starch with the claimed whiteness level using the conditions as instantly claimed, is being maintained for reasons of record.

Applicants have traversed the rejection by arguing that:

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1. The specification discloses examples of starch with a target whiteness level of 65 the invention is not limited to this value and one of ordinary skill in the art would recognize that higher whiteness level can be obtained based on the examples disclosed.

2. There is no undue experimentation necessary.

3. The fact that Okhuma does not disclose the invention demonstrates that the claimed method is not obvious and that disclosure of every operable species is not required.

Applicants' arguments are not found to be persuasive.

Even though the examples are not limited to the target whiteness level of 65, applicants' examples do not show that a whiteness level greater than 65 can be achieved, especially based on the disclosure of Okhuma. One of skill in the art would not be convinced that a whiteness level of greater than 65 can be achieved when heated to 170 degrees Celsius or even higher since temperature that high can cause degradation and caramelization, which can produce coloring (Okhuma, col. 6, lines 62-68). Because of this undue experimentation is necessary to determine if a whiteness level of greater than 65 can be achieved at temperatures of 150°C or above. Just because Okhuma does not disclose the claimed invention doesn't necessarily mean that the instant invention is novel or non-obvious over that of Okhuma. The rejection is being maintained.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The rejection of Claims 1, 3, 6-7, 13-16, 21, 23-24 and 27 under 35 U.S.C. 102(b) as being anticipated by Ohkuma et al (US 5,358,729) is being maintained for reasons of record.

Applicants have traversed the rejection arguing that Okhuma does not teach heating the acidified unmodified starch to the reaction temperature of about 140⁰C to about 180⁰C until a maximized yield of resistant starch has been obtained while maintaining a whiteness level of about 60 and about 120 and hence Okhuma does not anticipate the instant invention.

Applicants' arguments are not found to be persuasive.

The instant claims recite a temperature of about 140⁰C to about 180⁰C and a whiteness level of about 60 and about 120. The recitation "of about" does not clearly define the limits and in absence of such a definition the disclosure of Okhuma (Table 13 of Okuma discloses whiteness level of 66 at 130⁰C, which is about 140⁰C) is seen to anticipate the instant claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

The rejection of Claims 4 and 22 under 35 U.S.C. 103(a) as being unpatentable over

Ohkuma et al (US 5,358,729) is being maintained for reasons of record.

Applicants have traversed the rejection arguing that:

1. Okhuma teaches a maximum whiteness level of 50.5 within the temperature range of 140°C and 180°C and hence does not teach or suggest every element of claims 4 and 22. Given the inverse relationship between temperature and whiteness level according to Okhuma the instant invention is not obvious.

2. There is no teaching or motivation in Okhuma that gaseous hydrochloric acid can be used in place of aqueous hydrochloric acid.

Applicants' arguments are not found to be persuasive.

The instant process is drawn to a temperature of about 140°C to about 180°C and a whiteness level of about 60 and about 120. The recitation "of about" does not clearly define the limits. Hence, the every element of the instant claims is seen to be taught by Okhuma. Table 13 of Okhuma discloses whiteness level of 66 at 130°C, which is about 140°C. The whiteness level is also dependent on the time of heating (col. 23, lines 38-39). Hence Okhuma's disclosure suggests attaining whiteness levels as instantly claimed with optimized process conditions. Okhuma may not suggest specifically the use of gaseous hydrochloric acid but it is well within the purview of one of ordinary skill in the art to use gaseous hydrochloric acid since the use of such is easy to manipulate compared to handling large volumes of aqueous solution.

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Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Conclusion

Claims 1, 3-4, 6-7, 9-10, 12-16, 18-24 and 26-27 are rejected.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ganapathy Krishnan whose telephone number is 571-272-0654. The examiner can normally be reached on 8.30am-5pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shaojia A. Jiang can be reached on 571-272-0627. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GK


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